

## ABSTRACT

Investigation on the frequency of FLT3/ITD found in various blood cancers has revealed that the frequency is high in acute myeloblastic leukemia in particular. Studies on the effects of FLT3/ITD in the blood cell lines revealed that the tyrosine residues in FLT3/ITD is constitutively phosphorylated in these cell lines and that blood cells into which FLT3/ITD is introduced show IL-3 independent proliferation. Moreover, the blood cells into which FLT3/ITD is introduced are found to be capable of forming tumors and inhibit cell differentiation. The inventors have found that it is possible to screen for pharmaceutical compounds against tumors by using inhibition of these FLT3/ITD functions as an index.